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10/685,727	10/14/2003	Theodore Karoubalis	2819P	5403

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EXAMINER	
VUONG, QUOCHIEN B	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

Office Action Summary	**Application No.** 10/685,727	**Applicant(s)** KAROUBALIS ET AL.
	Examiner Quochien B. Vuong	**Art Unit** 2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Henry et al. (US 7,058,059).

Regarding claim 1, Henry et al. disclose a method for seamless mobility of mobile terminals in a wireless network, the method comprising: (a) utilizing a reassociation request from the mobile terminal to identify need for an internetwork handover of the mobile terminal roaming in a wireless local area network (WLAN); and (b) performing a protocol sequence in an access point (AP) for the mobile terminal to handle the internetwork handover to ensure connectivity of the mobile terminal while roaming (column 4, lines 55-67; and column 10, line 29 - column 11, line 7).

Regarding claim 2, Henry et al. disclose wherein the step (a) of utilizing a reassociation request further comprises (al) utilizing fields for internet protocol (IP) data in the reassociation request (column 10, line 29 – column 11, line 7).

Regarding claim 3, Henry et al. disclose wherein the fields further comprise a home access point IP address, a mobile terminal IP address, and a previous access point IP address.

Regarding claim 4, Henry et al. disclose (c) performing a standard handover protocol sequence when no internetwork handover is identified.

Regarding claim 5, Henry et al. disclose a system for seamless mobility of mobile terminals in a wireless network, the system comprising: a plurality of Internet protocol (IP) networks; and a plurality of service sets within each IP network, the service sets supporting mobile terminals communicating wirelessly among the IP networks via access points (APs), the APs utilizing a reassociation request from a mobile terminal to identify need for an internetwork handover of the mobile terminal roaming wirelessly in the network and performing a protocol sequence for the mobile terminal to handle the internetwork handover to ensure connectivity of the mobile terminal while roaming (column 4, lines 55-67; and column 10, line 29 - column 11, line 7).

Regarding claim 6, Henry et al. disclose wherein the AP utilizes fields for IP datain the reassociation request to identify the internetwork handover.

Regarding claim 7, Henry et al. disclose wherein the fields further comprise a home access point IP address, a mobile terminal IP address, and a previous access point IP address.

Regarding claim 8, Henry et al. disclose wherein the AP further performs a standard handover protocol sequence when no intemetwork handover is identified.

Regarding claim 9, Henry et al. disclose wherein the protocol sequence further comprises: establishing a sequence of IP tunnels in the wireless network;
generating a set of primitives at the APs within the wireless network; and
adding onto management entity architecture for the AP in an AP protocol stack (column 4, lines 55-67).

Regarding claim 10, Henry et al. disclose a method for providing a protocol sequence to support seamless mobility of mobile terminals in a wireless network, the method comprising: establishing a sequence of IP (Intemet protocol) tunnels between access points (APs) in the wireless network; generating a set of primitives at the APs within the wireless network; and adding onto management entity architecture for the AP in an AP protocol stack, wherein IAPP (Inter-Access Point Protocol) functionality is extended to maintain substantially constant IP-connectivity during handovers of the mobile terminal between APs while roaming in the wireless network (column 4, lines 55-67; and column 10, line 29 - column 11, line 7).

Regarding claim 11, Henry et al. disclose wherein establishing a sequence of IP tunnels further comprises: establishing a uni-directional IP tunnel from a previous AP of the mobile terminal to a new AP to which the mobile terminal attaches; and establishing one of the group comprising a bi-directional tunnel and two uni-directional tunnels from a home AP of the mobile terminal to the new AP (column 4, lines 55-67).

Regarding claim 12, Henry et al. disclose wherein generating a set of primitives further comprises generating the set of primitives according to standard IAPP service primitives (column 10, line 29 - column 11, line 7).

Regarding claim 13, Henry et al. disclose wherein generating a set of primitives further comprises generating a roam request primitive, a roam response primitive, a create-tunnel request primitive, and a create-tunnel response primitive (column 10, line 29 - column 11, line 7).

Regarding claim 14, Henry et al. disclose wherein generating a set of primitives further comprises generating a set of corresponding packets, the set of corresponding packets further comprising TCP/IP packets of a roam request packet and a roam response packet, and UDP/IP packets of a create-tunnel request packet and a create-tunnel response packet (column 4, lines 55-67; and column 10, line 29 - column 11, line 7).

Regarding claim 15, Henry et al. disclose generating the roam request primitive in a new AP in response to receipt of a reassociation indication in the case of a network handover of a mobile terminal; and triggering the sending of the roam request packet from the new AP to the home AP when the mobile terminal is associating to the new AP in a different network, including a foreign network and subnetwork, the roam request packet triggering creation of the bi-directional IP tunnel between the home AP and the new AP, the roam request packet comprising a packet format for an IAPP MOVE-notify with an addition of a field for the home AP IP address and a mobile terminal IP address (column 10, line 29 - column 11, line 7).

Regarding claim 16, Henry et al. disclose generating the roam response primitive upon receipt of the roam request packet from the new AP; and triggering the sending of the roam response packet from the home AP to the new AP as a response to the roam request packet to indicate that the bi-directional tunnel is established, the roam response packet comprising a packet format for an IAPP MOVE-response with an addition of a field for the home AP IP address and a mobile terminal IP address (column 10, line 29 - column 11, line 7).

Regarding claim 17, Henry et al. disclose generating a create-tunnel response primitive in the new AP when the mobile terminal moves within a foreign network or when the mobile terminal moves between foreign networks; and triggering the sending of a create-tunnel request packet from a new foreign AP to a previous foreign AP when the mobile terminal is moving from one foreign subnetwork or network to another, the create-tunnel request packet comprising a packet format for an IAPP MOVE-notify with an addition of a field for the new AP IP address and a mobile terminal IP address and indicating a new foreign care of address to the previous AP, the create-tunnel request packet triggering creation of the unidirectional IP tunnel from the previous AP to the new AP to which the mobile terminal attaches (column 10, line 29 - column 11, line 7).

Regarding claim 18, Henry et al. disclose generating a create-tunnel response primitive at a previous AP for the mobile terminal when the mobile terminal moves within or between foreign networks; and triggering the sending of a create-tunnel response packet from the previous AP to the new AP as a response to the create-tunnel request and indicating that the unidirectional IP tunnel is established, the create-tunnel response packet comprising a packet format for an IAPP MOVE-response with an addition of a field for the new AP IP address and a mobile terminal IP address (column 4, lines 55-67, and column 10, line 29 - column 11, line 7).

Regarding claim 19, Henry et al. disclose wherein adding onto management entity architecture for the AP in an AP protocol stack further comprises including an ordered list on every AP acting as a home AP of all associated mobile terminals that are currently moved into a network with a different IP domain, and including an ordered list on every AP acting as a foreign AP of all visiting mobile terminals for which the foreign AP has established IP tunnels toward the home AP of the visiting mobile terminal (column 10, line 29 - column 11, line 7).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dorenbosch et al. (US 6,768,726) disclose a method and apparatus for effecting a seamless handoff between IP connections.

Siorpaes et al. (WO 03/065682 A1) disclose a method and system for connecting mobile client devices to the internet.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QUOCHIEN B. VUONG
PRIMARY EXAMINER

Quochien B. Vuong
Jan. 06, 2008.